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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 08/720,070  
Filing Date: September 27, 1996  
Appellant(s): HYATT, RICHARD G

\_\_\_\_\_  
Robert E. Bushnell  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 5/3/10 appealing from the Office action mailed 12/18/08.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Co-pending application 10/440,308 (Docketed at BPAI -awaiting decision on Appeal).

Co-pending application 11/892,305 (awaiting examiner's answer)

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

1-26,28,30-42,46-52,54-56,64-70,75-77,82-84,90-93,95-100,105-116,119-121

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office

action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

### **WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The provisional double patenting rejection of claims 1-5,11-13,34,65-69,75,92-100,112,121 in view of Hyatt 6,564,601.

### **(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

### **(8) Evidence Relied Upon**

5,552,777	GOKCEBAY	9-1996
5,542,274	THORDMARK et al	8-1996
4,416,127	GOMEZ-OLEA NAVEDA	11-1983
10/440,308 (filed 5/19/03)	HYATT, JR.	
10/630,759 (filed 7/31/03)	HYATT, JR.	

6,564,601

HYATT, JR.

And excerpted  
prosecution history, paper  
received June 19, 2002,  
page 39.

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 90 and 120 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Specifically, the instant specification fails to provide support for the “at least one electromechanical locking member” and “plurality of electromechanical locking members” set forth in claims 90 and 120, respectively. This rejection stands, since, firstly, the solenoid coils 109, argued on page 69 of the amendment filed 2/24/03, are not disclosed “locking members”. Secondly, the specification discloses that the

"plurality" of locking members 106a, 107a, 108a are used alternatively and not as a plurality within the same plug. See the specification on page 12, lines 11-13 which clearly recites the use of locking member 106a or 107a or 108a.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 25, 26, 28, 30-33, 39-42, 46-52, 54-56, 64, 70, 76, 77, 82-84, 90, 91, 105, 107, 108, 109, 111, 113-116, 119-121, as best understood, are rejected under 35 U.S.C. 103 (a) as being unpatentable over Gokcebay 5,552,777 in view of Thordmark et al 5,542,274 and Naveda 4,416,127.

Gokcebay teaches all of the elements of the claimed invention including a cylinder 46, plug 24, elongate member (pin tumblers not shown-col.6, lines 61-62), orifice (housing contact/conductor 28 in Fig.3), radially oriented aperture (houses electrical operator 36 with spring biased 48 movable member 38), and electronic logic circuit (fig.2, col.5, line 56 to col.6, line 37). Gokcebay fails to teach a bar/detent which moves radially to the axis of the plug and the electronic operator having an electronic locking member which moves independently of the movement of the bar/detent which is reciprocated between a blocking and releasing position as a result of independent movement of the locking member. Thordmark et al teach a cylinder having an

electronic operator 12, a movable electronic locking member 11 which alternately allows and blocks reciprocation of a spring biased sidebar 10 (col.5, lines 38-47). Thordmark et al teach the electrically actuated blocking element being mounted in the cylinder and not the plug. While Gokcebay recognizes the existence of electro-mechanical locks having the blocking tumbler mounted in the cylinder casing like Thordmark, it is the object of the Gokcebay invention to provide a system which is very easily retrofitted into lock systems having a single key operating a number of locks, and which avoids dealing with electronics, solenoids or other hardware which would take up space within the lock casing adjacent the lock (col.2, lines 49-55). Naveda reinforces that one having ordinary skill in the art of electro-mechanical or magneto-electric lock systems would have known of the versatility and interchangeability of known electronic elements usable in verifying and actuating electric lock cylinders including among others, miniature coils, miniature electromagnets, electronic memories bioelectric circuits, resistance plates and the like (col.3, line 1-13 and col.4, lines 30-35). Furthermore, Naveda teaches that the electromagnet can be located in the receiver, or alternately, in the body of the key having any size or shape (col.4, line 60, col.9, lines 22-25). It would have been obvious to one of ordinary skill in the art to replace the simple blocking element of Gokcebay with the multi-part electrically actuated blocking element of Thordmark et al to thwart natural attempts to force system locks that are equipped with electronic blocking functions, of the kind meant by Thordmark (col. 1, lines 38-42), by making forcing of such locks more difficult. It would have further been an obvious reversal of parts and change of size to select miniature logic circuitry and a miniature solenoid and locking

member 11 such that the blocking mechanism fits within a conventional sized lock plug as taught by Gokcebay and Naveda.

### **(10) Response to Argument**

Introductory comments regarding presentation of arguments in Appellant's Brief:

At the outset, it is noted that determining the scope of the claims in this application, and the co-pending applications (10/440,308,10/630,759), is painstakingly difficult since Appellant's specification terminology, and arguments, in many instances, do not correspond to claim terminology. Furthermore, Appellant's arguments vacillate between the various terms used interchangeably throughout the specification and claims, though it is noted that Appellant often contradicts his own recitations and arguments, in later arguments throughout the brief. Appellant has argued throughout prosecution of this and the co-pending applications, that the detent and bar are two different elements. It is noted, however, that in the prosecution of co-pending application 10/061,202 which matured to patent no. 6,564,601, on page 39 of his remarks accompanying the amendment of 6/19/02 (attached in the Evidence Appendix of this Answer), Appellant stated the following: "The detent used throughout the claims is generic to either a bar, rod or sidebar and is believed to provide a broader scope to Applicant's pending claims. Applicant's *electrical operator* is generic to either a solenoid, a motor, a stepping motor or a rotary solenoid." The Examiner's construction of the claim terms used between the various applications and evidence relied upon are considered in light of this admission.



Accordingly, throughout the protracted prosecution of this application, the Examiner has used the "broadest reasonable interpretation" standard in construing the claim terms as supported by the specification. This interpretation of the disputed claim language is "reasonable" in light of all the evidence. Additionally, Appellant's arguments fail to rebut the presumption that independent claims should not be construed as requiring a limitation added by a dependent claim.

It is further noted that the Examiner has conscientiously tried to place this application in condition for allowance so that this application and copending applications 10/440,308 and 10/630,759 may proceed to interference with Field 5,839,307. In view of Appellant's redundant arguments set forth throughout the brief (e.g. 27 pages of conclusory remarks), the Examiner's Answer is structured, at times, without regard to when Appellant argues a particular claim and Appellant's arguments have been paraphrased and reorganized for the Board's benefit and consideration.

Note the following inconsistencies:

(1) On pages 73 and 91-102 of the brief, appellant argues two supposedly different double patenting rejections. It is noted that only one provisional double patenting rejection was presented in the final rejection of 12/18/08 and that rejection has been withdrawn herein as stated above.

(2) On pages 122-123 of the brief, appellant argues the rejection of claims 14 and 43 under 35 U.S.C. §103, however, these claims are not rejected under §103.

(3) On pages 132-136 of the brief, appellant argues the §103 rejection of claims 65 and 75, however, claims 65 and 75 are not rejected under 35 U.S.C. §103.

(4) On pages 137-142 of the brief, appellant sets forth a heading for claim 90, however, the subsequent discussion does not appear to be relevant to claim 90. Furthermore, a separate heading is set forth for claim 90 on pages 142-143, with relevant arguments.

(5) On page 146-147 of the brief, appellant argues the §103 rejection of claim 95, however, claim 95 is not rejected under 35 U.S.C. §103.

#### **1. REJECTION UNDER 35 U.S.C. §112, 1<sup>ST</sup> PARAGRAPH**

With respect to Appellant's arguments pertaining to the rejections of claims 90 and 120, the examiner maintains that the instant specification does not provide support for a "plurality of electromechanical locking members" as set forth in claim 120 or "at least one" as set forth in claim 90. Contrary to Appellant's repeated arguments on pages 74-91, the instant specification disclosed a plurality of locking members in the alternative only, (see Figure 1 and specification pages 12-15). The instant Figure 1 clearly discloses alternate locking members 105,106,107,108 mountable in a single barrel bore 80. Furthermore, the elected embodiment of Figure 8A, clearly shows one locking member 105 received in the single barrel bore 80.

Appellant's further arguments regarding Field, set forth on pages 15, lines 8-12 and pages 18-20, are irrelevant. Furthermore, it is noted that Field does disclose a

plurality of locking members 50,52,54 all in one plug, while the instant specification does not.

In addition, on pages 86, lines 1-3, Appellant's discussion of the Request under 37 CFR §1.607 is irrelevant to this proceeding and was requested for the potential interference.

## **2. PRIOR ART REJECTION UNDER 35 USC §103**

### **(A) General Statement of Examiner's Rationale**

Gokcebay teaches all of the elements of the claimed invention including a cylinder shell 20, plug/barrel 24, elongate members (conventional pin tumblers in bores 52-col.6, lines 61-62), a key engaging surface provided in the keyway and in the housing contact/conductor 28 in Fig.3, a radially oriented aperture which houses a solenoid/electrical operator 36 with a spring biased (48) movable member comprising a bar/detent/blocking pin 38, and electronic logic circuit (fig.2, col.5, line 56 to col.6, line 37).

The difference between the claimed invention and Gokcebay is Gokcebay fails to teach a bar/detent/blocking pin being engaged by a locking member which moves independently of the movement of the bar/detent which is reciprocated between a blocking and releasing position as a result of independent movement of the locking member via the electrical operator. Thordmark et al teach a cylinder having an electronic operator 12, a laterally movable electronic locking member 11 which alternately allows and blocks reciprocation of a radially spring biased sidebar/detent 10

(col.5, lines 38-47). Thordmark et al teach the electrically actuated blocking element being mounted in the cylinder shell and not the plug. While Gokcebay recognizes the existence of electro-mechanical locks having the blocking tumbler mounted in the cylinder casing like Thordmark et al, it is the object of the Gokcebay invention to provide a system which is "very easily retrofitted into lock systems having a single key operating a number of locks, and which avoids the need for electronics, solenoids or other hardware which would take up space within the... lock casing adjacent the lock" (col.2, lines 49-55). Gokcebay itself provides motivation for moving the electronics and hardware into the plug, rather than the shell, for retrofitting purposes and further states that "the most important features being that the blocking pin 38, solenoid 36 and operating devices are located within the lock itself, without requiring any further space...in a lock casing" (see col. 10, lines 11-19). Naveda is applied to reinforce that one having ordinary skill in the art of electro-mechanical or magneto-electric lock systems would have known of the versatility and interchangeability of known electronic elements usable in verifying and actuating electric lock cylinders including among others, miniature coils, miniature electromagnets, electronic memories bioelectric circuits, resistance plates and the like (col.3, line 1-13 and col.4, lines 30-35). Furthermore, Naveda teaches that the electromagnet can be located in the receiver, or alternately, in the body of the key having any size or shape (col.4, line 60, col.9, lines 22-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the simple blocking element of Gokcebay with the multi-part (detent 10 and locking member 11 therefor) electrically actuated blocking element

of Thordmark et al to thwart natural attempts to force system locks that are equipped with electronic blocking functions, of the kind meant by Thordmark (col. 1, lines 38-42), by making forcing of such locks more difficult. It would have further been an obvious reversal of parts and change of size to select miniature logic circuitry and a miniature solenoid and locking member 11 such that the blocking mechanism fits within a conventional sized lock plug as taught by Gokcebay and Naveda.

As set forth above, it is maintained that the prior art references, taken in combination, set forth a *prima facie* case of obviousness of the claimed invention. It is maintained that the combination of teachings of Gokcebay, Thordmark and Naveda, as discussed throughout these proceedings, would have provided motivation to one of ordinary skill in the art at the time the invention was made to place the movable locking member in the plug as claimed.

With respect to the claim language, it is noted that in the lock art, a rotatable plug is the same as a rotatable barrel, a lock cylinder is the same as a cylinder shell, and electrical operator is a general term comprising solenoid, motor, electromechanical member.

**(B) Examiner's Arguments for maintaining the prior art rejections of claims 25,26,28,30-33,39-42,46-52,54-56,64,70,76,77,82-84,90,91,105,107, 108,109,111,113-116,119-121.**

**Claims 25,26,28,30-33,39-42,46-52,54-56,64,70,76,77,82-84,91,107,108,109,111,113-116,119-121**

With respect to the language of claim 46 (by example), the Examiner submits that Gokcebay teaches a rotatable lock plug (barrel) 24 comprising a cylindrically shaped plug (barrel) 24 for receipt in a bore of a lock cylinder 20, having a first base (front face 30) and second base (rear face which receives a conventional cam), a blocking pin (bar/detent) 38 borne by the plug (barrel) 24, the plug (barrel) 24 having a recess formed therein for receipt of the blocking pin (detent) 38 and a solenoid (electrical operator) 36 wherein in one position the solenoid (electrical operator) limits movement of the blocking pin (detent) and in a second position the solenoid permits movement of the blocking pin (detent) 38. It is agreed that Gokcebay fails to teach a locking member within the plug which is driven by the electrical operator to limit movement of the blocking pin (bar/detent). As discussed generally above, Thordmark teaches a radially movable elongate sidebar/detent 10 and locking member 11 in the shell wherein the locking member 11 is moved laterally by an electrical operator/drive mechanism (motor 12 or electromagnet 17), perpendicularly to the sidebar/detent plane, to limit movement of the detent 10. While Gokcebay itself teaches motivation for providing all electronics and hardware within the plug (col. 2, lines 53-55; col. 3, lines 2-6; col. 10, lines 12-19, especially), instead of the shell as in Thordmark, Naveda further teaches the miniaturization of lock elements as discussed above. Accordingly, the wholesale substitution of Thordmark's locking member and detent for the blocking pin (detent) 38 of Gokcebay would have been obvious to a person of ordinary skill in the art at the time the invention was made in view of the combined teaching of Gokcebay,

Thordmark and Naveda, since such person would have been motivated based on the desirability to miniaturize and place all elements within the plug (barrel) for easily retrofitting plugs (barrels) in electro-mechanical cylinder locks taught by Gokcebay and Naveda and further, for enhancing the lock device by providing a secondary locking means for the detent as taught by Thordmark.

Gokcebay clearly teaches a key engaging conductor surface 28 on the plug, exterior to the first base 30, memory borne by the plug storing a code corresponding to the plug and read by the key, and a solenoid (electrical operator) 36 to move the detent 38 in response to a correct code recognized by the key. Gokcebay's solenoid (electrical operator) 36 clearly blocks the blocking pin (detent) 38 from moving relative to the plug (barrel) 24 or cylinder shell 20 absent reception by the solenoid (operator) 36 of said data signal conforming to said code. (See col. 3-col. 4 of Gokcebay; col. 7, lines 11-14; col. 8, lines 15,21-24). Gokcebay further teaches the key engaging surface 28 on the plug 24, enabling driving of the plug by code means releasing the detent to allow rotation/torquing of the key and plug through the engagement of the key in the keyway. (Gokcebay col. 3, line 64 - col. 4, line 2).

**Claims 90,105**

With respect to claims 90 and 105, the Examiner submits that Gokcebay clearly teaches the structure set forth in instant claim 90, but fails to specify the process steps set forth in fitting a lock with a new plug. However, since Gokcebay clearly teaches the use of the plug 24 in retrofitting cylinder locks, and it is conventionally known that in retrofitting or changing cylinder locks, it is inherent that the cylinder lock would be

removed, the plug removed from the cylinder and replaced with a new plug. Gokcebay clearly teaches, as discussed throughout this answer, that all electronics and hardware such as detents and electrical operators, are placed within the retrofittable plug, rather than the conventional placement in the cylinder shell, in order to easily retrofit new plugs into existing cylinder shells. (col. 3, lines 2-6; col. 2, lines 53-55). Gokcebay further teaches a key engaging surface 28 on the plug 24, enabling driving of the plug by code means releasing the detent to allow rotation/torquing of the key and plug through the engagement of the key in the keyway, a memory borne by the plug storing a code and an solenoid (electrical operator) 36 to move the detent 38 radially in response to a correct code recognized by the key. Gokcebay's solenoid (electrical operator) 36 clearly blocks the blocking pin (detent) 38 from moving relative to the plug (barrel) 24 or cylinder shell 20 absent reception by the solenoid (operator) 36 of said data signal conforming to said code (Gokcebay col. 3, line 64 - col. 4, line 2).

Thus, while it has been repeatedly shown that Gokcebay teaches the claimed structure, it is also shown that Gokcebay teaches the general process of retrofitting a plug in a cylinder lock. Since the specific steps are not taught, this rejection is under 35 USC §103. It would have been obvious to one of ordinary skill in the lock art to employ the well known steps in the lock art of changing a lock plug within a cylinder by removing the old cylinder plug and inserting the new plug (Gokcebay teaches that it is well known that "[l]ocks may be changed in the manner of typical mechanical locks, by replacing the cylinder, or refitting the mechanical bitting (new sets of tumblers) and changing the cylinder plug. (col. 4, lines 33-43).



**(C) Rebuttal of Appellant's General Arguments throughout the Brief**

Firstly, it is noted that Appellant's arguments with respect to the prior art rejection under 35 USC §103 bear no resemblance to the claims or specification. For instance, on page 13 and throughout the summary of the claimed subject matter provided in pages 7-71 of the brief, Appellant seems to argue that electrical operators 105,106,107,108 can be used together, specifically stating on page 13, lines 2-3 of the brief, that integration of an electrical operator with a locking mechanism may be achieved by incorporation of "one, or more, electrical operators 105, 106, 107, 108". This statement is incorrect. Appellant is attempting to claim what is in the Field '307 patent, which is a "plurality" of electromechanical locking members or operators, for the purpose of future interference proceedings. In fact, the instant specification only provides 35 U.S.C. §112 basis for electrical operators 105-108 in the alternative within chamber 80, adjacent conventional tumbler pin chambers 82, as shown in Figure 1 and set forth on pages 12-15 of the instant specification.

Secondly, in response to Appellant's arguments regarding the rationale of incorporating Thordmark's shell structure into the Gokcebay plug for retrofitting purposes, it is noted that Gokcebay states (col.2, lines 49-55) that an object of the invention is "to provide a system which is very easily retrofitted into lock systems having a single key operating a number of locks, and which avoids the need for electronics, solenoids or other hardware which would take up space within the...lock casing adjacent the lock." Gokcebay further teaches (col. 3, lines 1-6) that the lock

"has an electronic access feature which occupies no more space than the mechanical lock itself. Nothing is required outside the lock cylinder, and in fact, in preferred embodiments, all electronics and hardware are contained in the cylinder plug, aside from a small recess or bore which is provided in the cylinder shell."(emphasis added)

Accordingly, contrary to Appellant's arguments, it has been determined that "motivation is present in the Gokcebay patent, though it may not have been expressly pointed out in the final rejection." It was determined that Gokcebay clearly teaches that

"the purpose of providing the entire blocking system within the plug is to "provide a system which is very easily retrofitted into lock systems...and which avoids the need for electronics, solenoids or other hardware which would take up space within...the lock casing adjacent to the lock" (col. 2, lines 49 through 54)."

Thirdly, Appellant notes on pages 86 and 117 of the brief, and by inference throughout the brief, the inability of the Office to provide the clarification requested by Appellant under 37 CFR 1.104. This statement is not well taken. Throughout the prosecution history of this application, the Examiner has clearly set forth the basis for the rejections made. Appellant and Examiner are merely at an impasse regarding the enablement issue and the teachings of Gokcebay, Thordmark and Naveda and whether a person of ordinary skill in the art armed with such teachings would have been motivated to make the changes proposed by the Examiner.

**(D) Rebuttal of Appellant's Specific Claim Arguments**

Appellant further sets forth specific arguments with respect to the separate claims. These arguments are rebutted with respect to each claim below.

**Claim 25 (page 108)**

In response to Appellant's arguments on page 108 that the Examiner's proposed combination is devoid of any "stationary bar borne by said shell", the Examiner maintains that Thordmark teaches the bar being mounted in the cylinder/shell rather than the plug/barrel.

**Claim 46 (page 108)**

In response to Appellant's arguments on page 108 that the proposed combination is devoid of the "bar borne by said plug...to reciprocate generally along a radial plane", the examiner maintains that, in fact, as previously discussed, the primary reference Gokcebay does teach a detent 38 borne by the plug 24 reciprocating generally along a radial plane.

**Claim 56 (pages 108-109)**

In response to Appellant's arguments on pages 108-109 that the proposed combination is devoid of the "elongate member interposed... to travel generally along a radial direction", in the Examiner's combination, the Thordmark laterally moving electrical operating member 13,12 and locking member 11 and the radially movable elongate sidebar/detent 10 are substituted for the plug borne detent 38 of Gokcebay, clearly teaching the claimed relationship.

**Claim 64 (page 109)**

In response to Appellant's arguments on page 109 that the proposed combination is devoid of the "sidebar interposed...to travel generally along a radial plane", in the Examiner's combination, the Thordmark laterally moving electrical operating member 13,12 and locking member 11 and the radially movable elongate sidebar/detent 10 are substituted for the plug borne detent 38 of Gokcebay, clearly teaching the claimed relationship.

**Claim 70 (page 109-110)**

In response to Appellant's arguments on pages 109-110 that the proposed combination is devoid of the "bar...interposed to travel generally along a radial plane..." in the Examiner's combination, the Thordmark laterally moving electrical operating member 13,12 and locking member 11 and the radially movable elongate sidebar/detent 10 are substituted for the plug borne detent 38 of Gokcebay, clearly teaching the claimed relationship.

**Claims 76,77 (page 110-111)**

In response to Appellant's arguments on pages 110-111 that the proposed combination is devoid of the elongate bar traveling generally along a radial axis, in the Examiner's combination, the Thordmark laterally moving electrical operating member 13,12 and locking member 11 and the radially movable elongate sidebar/detent 10 are substituted for the plug borne detent 38 of Gokcebay, clearly teaching the claimed relationship.

**Claim 91 (page 111)**

In response to Appellant's arguments on page 111 that the proposed combination is devoid of the radially reciprocating bar, in the Examiner's combination, the Thordmark laterally moving electrical operating member 13,12 and locking member 11 and the radially movable elongate sidebar/detent 10 are substituted for the plug borne detent 38 of Gokcebay, clearly teaching the claimed relationship.

**Claim 120 (page 111)**

In response to Appellant's arguments on page 111 that the proposed combination is devoid of the barrel having "an interior containing a plurality of electromechanical locking members", it is noted that this limitation of claim 120 does not find support and enablement in the disclosure as previously discussed in the section (1.) above regarding the rejection under 35 U.S.C. 112, 1<sup>st</sup> Paragraph. Accordingly, claim 120 has been rejected as best understood.

**Claim 121 (page 111-112)**

In response to Appellant's arguments on pages 111-112 that the proposed combination is devoid of the "detent extending radially...", in the Examiner's combination, the Thordmark laterally moving electrical operating member 13,12 and locking member 11 and the radially movable elongate sidebar/detent 10 are substituted for the plug borne detent 38 of Gokcebay, clearly teaching the claimed relationship.

**Claim 46-52,56,64,70,76,77,90,91,105,119 (pages 112-117)**

In response to Appellant's arguments on pages 112-117, that the Examiner's proposed combination "lacks teaching or suggestion of claim 46's "bar borne by said

plug and rotatable with said plug relative to said shell...”, the examiner maintains that, in fact, as previously discussed, the primary reference Gokcebay does teach a detent 38 borne by the plug 24 and rotatable with the plug 24 relative to said shell 46 (Gokcebay Fig.4). It is reiterated that in the lock art, a cylinder plug is synonymous with a barrel, and a cylinder is the same as a shell, thus Appellant cannot argue that Gokcebay's rotatable cylinder plug 24 within the lock cylinder 20/46 is different from the instant rotatable barrel within a cylinder shell. Furthermore, in the Examiner' combination, the Thordmark laterally moving electrical operating member 13,12 and locking member 11 and the radially movable elongate sidebar/detent 10 are substituted for the plug borne detent 38 of Gokcebay, clearly teaching the claimed relationship between the plug and shell.

Appellant continues to state that Gokcebay is “singularly devoid of any structure for bearing a detent” (page 144, line 1-2 of the brief); this statement is incorrect and misleading. Clearly the plug borne blocking pin 38 of Gokcebay is a spring-biased detent, by definition, between the rotatable plug 24 and cylinder shell 20. Appellant's further arguments on page 115-117, regarding the combination with Thordmark are not persuasive since the examiner is not proposing utilizing the Thordmark locking member 11 and sidebar/detent with the detent 38 of Gokcebay, but rather substituting the Thordmark sidebar/detent 10 and locking member 11 for the detent of Gokcebay since both are actuated by an electrical operator.

It is noted that while Appellant refers to the detent 10 of Thordmark only as a “latching member” and the element 7 of Thordmark as a sidebar (page116), the

Examiner submits that the member 10 clearly operates as a sidebar in addition to the sidebar 7 and is thus interpreted as a sidebar 10 with blocking locking member 11, operated by electrical operator 12,13.

In response to Appellant's argument on page 116, lines 19-20, that there is no teaching "for shifting "a spring biased sidebar 10" anywhere", since the "primary reference does not require a sidebar...", the Examiner reiterates that while Gokcebay teaches a spring biased sidebar/detent 38, the combination includes the Thordmark sidebar and locking member. Furthermore, Naveda is merely used to teach the miniaturization of lock elements.

It is further noted that footnote 527, set forth on page 114, erroneously states that the Thordmark member "10, or 11 must necessarily remain with the recess, or bore, provided by the outer shell of the lock..." This statement is not true. If, as the Examiner proposes, the entire lock system mounted in the shell is wholly substituted for the electrical operator and detent of Gokcebay, in view of Gokcebay's teaching, there is no basis for Appellant's statement.

In response to Appellant's argument of "hindsight reconstruction" set forth on page 115, it is maintained that Gokcebay itself teaches motivation for providing all electronics and lock systems within the plug for easily retrofitting cylinder locks. Furthermore, there is ample teaching flowing from Gokcebay, Naveda, and Thordmark to motivate the person of ordinary skill in the art at the time the invention was made toward a more secure electro-mechanical cylinder plug which can be retrofitted into existing lock systems, without reliance on Appellant's specification.

**Claims 46,56,64,70,76,77,90,120,121 (pages 117-121)**

In response to Appellants' arguments on page 117-121 against Gokcebay, it is maintained that Appellant continues to argue the prior art references singularly, when it is clear that the combination is being presented as teaching the claimed invention.

Regarding Appellant's arguments on page 118-119, Gokcebay's solenoid (electrical operator) 36 clearly blocks the blocking pin (detent) 38 from moving relative to the plug (barrel) 24 or cylinder shell 20 **absent reception** by the solenoid (operator) 36 of said data signal conforming to said code (Gokcebay col. 3, line 64 - col. 4, line 2). The Examiner submits that it would have been obvious to reverse the coding and program the electronics of Gokcebay, as desired, to provide the process of blocking the blocking pin (detent) 38 from moving **upon reception** by the solenoid (electrical operator) 36 of the code. In other words instead of programming the electronics such that the correct code releases the detent to allow rotation of the plug within the cylinder shell, the code would block the detent from movement, thus locking the plug against rotation in the cylinder shell. This modification in programming the electronics of Gokcebay would have been obvious to one having ordinary skill in the lock art in view of the well known fact that electronics can be programmed to lock or release depending on the desire of the user, and especially in view of the teaching in Gokcebay (col. 10, line 11-12) that the system of the invention can be "modified to operate in other ways."

In further response to Appellant's argument set forth on pages 117-120, it is maintained that the detent may move to allow rotation of the plug within the cylinder shell only upon energization of the solenoid operator 36 of Gokcebay, in response to a correct code. In other words, the detent is released to move. On page 118, Appellant



argues that the wholesale substitution of Thordmark's detent and locking member "impermissibly prevents the primary reference [Gokcebay]... from operating in its intended mode of operation" with a bore or recess 50 [drilled into or preferably through cylinder shell 46]. The Examiner maintains that a person of ordinary skill in the art is presumed to know something about the art. It is maintained that a person of ordinary skill in the art at the time the invention was made would know how to modify Gokcebay such that the cylinder plug and shell are operable when the cylinder plug of Gokcebay is outfitted with the detent/sidebar solenoid locking assembly of Thordmark. Essentially, the electro-mechanical locking assembly of Thordmark which is housed in the lock cylinder/shell 2, would be flipped and inserted into the plug of Gokcebay such that the sidebar/detent 10 would fit through a slot/recess in the plug of Gokcebay and mate with a groove/recess in the lock cylinder/shell of Gokcebay. Therefore, if the detent were cylindrical, as shown in Figs. 3 and 5 of Gokcebay, a bore would be drilled to accommodate it. If instead the detent were a well known longitudinally disposed detent/sidebar (10) such as shown in Thordmark, a recess (3a) would extend longitudinally along the lock shell/cylinder and plug in order to accommodate the sidebar in the locked and released position. Accordingly, Appellant's argument is not persuasive. Further with respect to the argument on page 118, that "Despite Appellant's request... for clarification..., no explanation has been forthcoming.", it is submitted that Appellant clearly understood the Examiner's position as evidenced by his capable reiteration of the Examiner's position throughout the brief.

**Claim 46 (pages 120-121)**

Appellant reiterates his arguments regarding claim 46 and the teachings of Gokcebay and Thordmark; these arguments are redundant and were answered above.

Appellant's argument on page 120 regarding Thordmark are not persuasive. The examiner maintains that Thordmark does teach movement in two planes. The electrical operator 13 and locking member 11 move laterally along the plug axis and perpendicularly to the radially movable sidebar/detent 10.

**Claims 14 and 43 (pages 122-123)**

As discussed previously, claims 14 and 43 are not rejected under 35 U.S.C. 103. Thus these arguments are moot.

**Claims 25,26,28,30-33,39-42,46-52,54,56,64,70,76,77,90,91,105,108,109,111,113-116,119,120 (pages 124-129)**

**Claims 47,48,51 (pages 129-130)**

**Claim 49 (page 131)**

**Claim 56 (page 131-132)**

**Claims 64,65,70,75,76,77 (pages 133-137)**

Appellant's arguments pertaining to the claims presented in the preceding five headings, set forth on pages 124-137, are redundant and were answered above.

Furthermore, as noted previously, claims 65 and 75 are not rejected under 35 U.S.C. 103 and should not be discussed here.

**Claim 90 (pages 137-142)**

As previously discussed, the arguments presented on pages 137-142 do not appear to be relevant to the “process” claim 90, and are merely redundant arguments similar to those set forth previously in the brief and answered above. Furthermore, Appellant’s statement on page 137, that “the Examiner improperly asserted that independent claim 90...was withdrawn from consideration...” is an incorrect statement. In fact, claim 90 is rejected under 35 U.S.C. 103 and is not withdrawn.

**Claim 90 (page 142-143)**

In response to Appellant’s argument on pages 142-143 that the Examiner’s proposed combination requires a “recess or bore 50” (page 142) and that “Appellant’s process neither uses nor requires a modification of the shell” (page 143, line 1-2) to accommodate the process of claim 90, it is submitted that this statement is both incorrect and irrelevant. Firstly, it is irrelevant because the instant claims do not recite that no modification or alteration of the cylinder shell is required. Secondly, it is an incorrect statement, because in fact, the instant specification discloses that “minor alteration” is needed (page 5, lines 2-3 recites a “minor alteration of a lock’s cylinder; page 18, lines 5-6 requires single hole modification).

**Claim 91 (page 143-146)**

Appellant’s arguments set forth on pages 143-146 with respect to claim 91 are redundant and were answered above.

**Claim 95 (page 146-147)**

As noted previously, claim 95 is not rejected under 35 U.S.C. 103 and should not be discussed here.

**Claim 105 (page 147)**

Appellant's arguments set forth on page 147 with respect to claim 105 are redundant and were answered above.

In response to Appellant's arguments on page 147, it is once again maintained that Gokcebay clearly teaches retrofitting a cylinder plug within a new or existing cylinder shell of a cylinder lock. As previously discussed above with respect to the Examiner's position regarding claim 90, it is maintained that in providing the retrofit cylinder or plug of Gokcebay, the process steps of the instant claims would be employed.

**Claims 108,109,111,113-116 (pages 148-149)**

Appellant's arguments set forth on pages 148-149 with respect to claims 108,109,111,113-116 are redundant and were answered above.

**Claims 119,120 (page 149)**

Appellant's arguments set forth on page 149 with respect to claims 119,120 are redundant and were answered above.

Note, however, with respect to Appellant's statement on page 149, line 7, that "claim 119 is a copy of claim 1 of Field '307"; it is noted that claim 119 depends from now cancelled claim 85, and therefore, is not a copy of claim 1 of Field.

With respect to claim 120, it is noted that, as previously discussed above and in the rejection under 35 U.S.C. 112, 1<sup>st</sup> paragraph, there is no support in the instant specification for "a plurality of electromechanical locking members". Accordingly, claim

120, while copied from the Field patent 5,839,307, is rejected herein "as best understood" with one electromechanical locking member.

**Claim 121 (pages 149-150)**

Appellant's arguments set forth on pages 149-150 with respect to claim 121 are redundant and were answered above.

**In response to Appellant's conclusory bullets set forth on pages 155-156:**

- Gokcebay teaches a solenoid (an electrical operator, as admitted by Appellant and discussed previously in this answer) within the plug or barrel (not cylinder shell) and also teaches putting all components into the plug, as discussed repeatedly throughout this answer.

- Firstly, Gokcebay is not "wholly devoid of any bar", but rather teaches detent /bar 38 as previously discussed in this answer. Thus this opening statement is incorrect. Secondly, Thordmark and Naveda are not used to teach the process step of "inserting a different plug comprised of a detent mounted upon said different plug". Gokcebay teaches the process of retrofitting, Thordmark is used to teach a locking member 11 for a detent 10.

- Gokcebay clearly teaches a detent that provides engagement between the shell and cylinder plug; Appellant's statement is incorrect and misleading. Furthermore, the use of cylinder and plug interchangeably is unnecessarily confusing.

- While it is true that Thordmark teaches nothing about insertion of any operator within the cylinder, Thordmark is not used to teach that, but rather to teach the use of an electrically driven locking member 11 for a detent 10.
- Gokcebay does not require "major alteration" of the shell as stated - this statement is incorrect. As discussed previously, Gokcebay requires the same minor alteration to the "recess or bore" as the instant disclosed invention.
- The argument that both Gokcebay and Thordmark are "utterly incapable of providing any interaction with the primary locking mechanical features" is both wrong and irrelevant. This feature is not recited in the claims and is therefore irrelevant. Also, it is untrue, since both Gokcebay and Thordmark provide the electrical/electromechanical detent in addition to the primary mechanical locking features provided in the conventional pin tumblers (pin tumbler bores 52 of Gokcebay; 5 of Thordmark) actuated by the key.
- It is true that Naveda is singularly devoid of any teaching of a cylinder plug and primary mechanical locking mechanism, however, it is noted that Naveda is only used as an additional teaching reference for miniaturizing lock components, as previously discussed in this answer.
- It is true that Naveda fails to describe the locking components. As stated above, it is merely used as a further teaching reference for miniaturizing lock components.

Appellant's summary, set forth on pages 151-178 of the brief, reiterates the arguments set forth on pages 73-150 of the brief and have been considered and rebutted throughout the Examiner's answer. Contrary to Appellant's arguments, the Examiner has not focused only on individual limitations, but rather on the claimed invention as a whole. It is Gokcebay's primary and "most important feature" to provide a cylinder plug which may be easily retrofitted in a cylinder shell by providing all electronics and hardware in the plug instead of the shell (col. 3). Naveda is used merely to teach the miniaturization of lock components to provide further motivation for providing the locking member and detent of Thordmark within the plug of Gokcebay. The Appellant has set forth many inaccurate statements and arguments.

The Examiner maintains that a *prima facie* case of obviousness has been established and not rebutted by the Appellant.

#### **(11) Related Proceeding(s) Appendix**

Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner's answer are provided herein.

See the excerpted prosecution history from Hyatt 6,564,601 (response of 6/19/02, page 39) attached to the end of the Examiner's Answer of 9/27/06.

Art Unit: 3673

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Suzanne Barrett/

Suzanne Barrett

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Darnell Jayne /dj/